

Editorial

Building up original evidence

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A professor emeritus in clinical pathology, a seasoned researcher now retired, recently sent me an autobiographical review of his lifework and a bibliography of his major articles. In it he reviews his long years of pathology analysis and research conducted to identify the etiological agents responsible for the development of rheumatoid arthritis. Although the work he reviews is familiar — I have read many of his articles and heard many of his presentations at scientific meetings over the years — his new accounts of it have enlightened me anew. It occurred to me, in reading through the review, how difficult it can be for a researcher to establish a hypothesis of his or her own. And once a hypothesis has been formed, how long does it normally take for it to gain acceptance as a theory? There seems to be only one way for a hypothesis to become an accepted theory: other researchers must repeatedly suggest in their own reports that no other hypothesis can conceivably be offered as an explanation. It takes a long time and much hard work. Especially when establishing a hypothesis of our own, we first have to publish many papers in English. Back during the early days of this professor emeritus, it might not have been easy to write many articles in English and contribute them to overseas academic journals. I myself was engaged in a very similar struggle.

About two decades ago, I asked the editor of a prestigious American journal why journals in the United States did not necessarily accept submitted papers even on outstanding research from Japanese contributors. “Our journals are funded by the members of American academic societies,” he explained. “When overseas authors unaffiliated with these societies submit papers, most of the journals find space for them only if they present important new findings in fields with which

American researchers are unfamiliar. Even when Japanese contributions are just as good as those from America, the journals have no choice but to allot their space to the latter. If Japanese researchers want to report their own research overseas in the same fields as ours, then Japanese academic societies will have to publish their own journals in English.”

World-famous academic journals in English generally do not publish articles based on novel or unfamiliar ideas submitted by researchers from foreign countries who are not well known. Even when researchers make good progress in their studies, the prospects for follow-up studies remain bleak unless their first reports are finally accepted and published. Many Japanese orthopaedic surgeons have been forced to abandon promising research after repeatedly trying and failing to disseminate their findings in American and European journals. We need to remember that it could be just this type of conflict that gave rise to the creation of the *Journal of Orthopaedic Science*.

From what I have just described, some readers may think that this has been a roadblock for only some orthopaedic surgeons. Let us turn now to the clinical aspect more closely. Society nowadays is coming to advocate the policy of disclosing all medical information. In following this policy faithfully, the doctor often must leave the final choice of treatment to the patient after thoroughly advising the patient of the treatment options available — their efficacy, risk of side effects, prognosis, and costs. Some patients may demand reimbursement for their expenses or even resort to lawsuits when the treatments they choose fail to achieve the effects they had been “led to expect.” Indeed, medical practice is beginning to look like another sellable commodity. We physicians are asked to present the details of our daily practice to patients — our clients — as we conform to the guidelines on evidence-based medicine. To prepare the details of medical treatment to be shared among both physicians and patients, we must first compile

therapeutic guidelines from the standard medical practices approved by the medical association. If the details of a medical treatment are to be accepted unanimously by all physicians, the guidelines must include only evidence-based therapies — therapies established by evidence published in medical papers. The therapeutic guidelines thus prepared for use by doctors are now being re-edited into clearly understandable patient guidelines to ensure that patients can understand the details of therapies they receive. These guidelines are part of a system being established to enable doctors and patients to share the same information. With access to this information, patients are better prepared to make informed choices of their own.

Doctors nowadays can no longer force their patients to submit to therapies of their own choosing. No longer do they have the prerogative of administering therapies strictly their own way. Our society has shed a tradition dating back to the days of Hippocrates, a tradition whereby physicians, invested with the full trust of their patients, faithfully endeavored to heal those patients in accordance with their own judgment. Now we are bound by a code called the therapeutic guidelines. Japanese orthopedic surgeons, meanwhile, will never be in a position to disseminate their new concepts to the world if the profession adheres entirely to the standard of

evidence-based medicine. If we Japanese orthopedic physicians are to develop original therapies and hope to add them to the guidelines as evidence in the field of orthopedic therapies, we will have to build up a body of evidence for the therapeutic guidelines by publishing our findings in English. Many Japanese orthopedic surgeons could face insurmountable difficulties in publishing papers in English, difficulties that would ultimately stifle the development of original orthopedic therapies. As once more we consider the reasons and need for the establishment of this journal, we again would like to express our gratitude to the people in Japan and around the world who had a hand in its creation and growth. For the further development of orthopedics, in collaboration with many colleagues and friends around the world we would also like to share these benefits already mentioned with any friends abroad who might have the same kinds of problems in publishing original research work as we had. Thus, the *Journal of Orthopaedic Science* could play a great role in globalizing the Japanese Orthopaedic Association in the twenty-first century. Henceforth, I urge all members of the association to continue building this treasure-house of information. With ongoing success, the journal will have greater impact and will be valued more highly among researchers worldwide.